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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/360,542	07/26/1999	LUIS FELIPE CABRERA	2110	4320

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EXAMINER

LE, DIEU MINH T

ART UNIT	PAPER NUMBER
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2184

DATE MAILED: 06/20/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

24

Office Action Summary

Application No.

09/360,542

Applicant(s)

CABRERA ET AL.

Examiner

Dieu-Minh Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the RCE filed May 21, 2003 in application 09/360,542.
2. Claims 1-55 are again presented for examination.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-55 are rejected under 35 U.S.C. § 103(a) as being unpatentable McGill, III et al. (US Patent 5,469,573 hereafter referred to as McGill) in view of Hugard et al. (US Patent 5,745,669 hereafter referred to as Hugard).

As per claim 1:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - writing information/data to first medium including storage mechanism configuration data [fig. 3, col. 2, lines 21-22];
 - writing data files via the backup device to a second medium [fig. 3, col. 2, lines 22-23];
 - reading information from the first medium [col. 2, lines 23-26];
 - automatically configuring a storage mechanism based on the storage mechanism configuration data, and creating a restoration environment [col. 2, lines 23-26];

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- enabling the operation of the backup device [col. 2, lines 26-28];
- operation the backup device to restore the data files [col. 2, lines 28-31].

McGill does not explicitly teach:

- system state information.

However, McGill does disclose capability of:

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data,

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etc..., and more specifically data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58], recovery configuration for the system [fig. 3, col. 4, lines 24-39] as being the system state information as claimed by Applicant since the system state or data restoring and recovering are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22] and configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to

enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claims 2-4:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- writing **device driver** to the medium [col. 2, lines 43-47];
- identifying a **restore program** [fig. 2, col. 4, lines 30-37].
- writing **hard disk configuration information as the storage mechanism configuration data** [col. 2, lines 45-60].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
- comprising:

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- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

As per claim 5:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
 - **a floppy disk medium** [col. 2, lines 40-42];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].
- **a floppy disk medium** [col. 3, lines 37-45].

As per claim 6:

Even though McGill does not explicitly teach:

- a CD-ROM medium.

However, McGill discloses capabilities of:

- a removable media [col. 2, lines 40-42];
- an **optical disk drive medium** [col. 3, line 60].

Therefore, it would have been obvious to an ordinary skill in the art to realize the McGill's removable and optical disk drive medium as being the CD-ROM medium. This is because the optical disk drive's data is stored in a CD-ROM type medium and is read by optical light function. In addition, the CD-ROM feature is notoriously well known and widely used in computer arena. Generally speaking, every computer now-a-day has either external or internal CD-ROM capability therein.

As per claims 7-8:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
 - **transmitting data over transmission medium** [fig. 1, col. 4, lines 1-5];
 - **saving information to network files** [col. 6, lines 35-50].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:
 - saving computer configuration data capability [col. 7, lines 29-35].

As per claims 9-11:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] with a restoration comprising:
 - **automatically configuring a storage mechanism includes configuring a hard disk based on the storage mechanism configuration data, and creating a restoration environment** [col. 2, lines 23-26];
 - data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
 - a **hard drive medium** [col. 2, lines 58-59];
 - configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
with a restoration comprising:
 - a **hard drive medium** [col. 4, lines 1-5];
 - a computer system boot from hard disk for recovery [col. 4, lines 48-60].

As per claim 12:

McGill does not explicitly address:

- registry data to a system registry.

However, McGill does disclose capability of:

- loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:
 - a checkpoint routine used for system recovery process [col. 5, lines 47-60];

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), and more specifically loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47] as being the registry data to a system registry as claimed by Applicant since the system state or data restoring and recovering having the registry data are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing

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data, etc...to explicitly including a checkpoint routine used for system recovery process [col. 5, lines 47-60] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein.

As per claims 13-14:

- McGill substantially teaches the invention. McGill teaches:
- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
 - **a tape drive medium** [col. 3, lines 59-60];
 - **a hard drive medium** [col. 2, lines 58-59];
 - configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
 - hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-
67].
- a **tape drive medium** [fig. 2, col. 7, lines 28-45];
- a **hard drive medium** [col. 4, lines 1-5];

As per claims 15-17:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system
[abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system
configuration files, device driver files, and any other
files necessary to properly configure and operate the
workstation [col. 3, lines 51-58];
- writing **device driver** to the medium [col. 2, lines 43-
47];
- identifying a **restore program** [fig. 2, col. 4, lines 30-
37].
- writing **hard disk configuration information** [col. 2,
lines 45-60]

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

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- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

As per claim 18:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - collecting information/data including hard disk configuration [fig. 3, col. 2, lines 21-22 and col. 2, lines 58-67];
 - recording (i.e., writing) data files a accessible medium [fig. 3, col. 2, lines 22-23];
 - recording recovery information to the medium [col. 2, lines 23-31];

McGill does not explicitly teach:

- system state information.

However, McGill does disclose capability of:

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
- comprising:

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- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc..., and more specifically data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58], recovery configuration for the system [fig. 3, col. 4, lines 24-39] as being the system state information as claimed by Applicant since the system state or data restoring and recovering are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22] and configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc...

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[col. 12, lines 41-67] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claim 19-20:

McGill teaches:

- a custom driver (removable driver) [col. 2, lines 40-42]

McGill does not explicitly address:

- registry data to a system registry.

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However, McGill does disclose capability of:

- loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
comprising:
 - a checkpoint routine used for system recovery process [col. 5, lines 47-60];

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), and more specifically loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47] as being the registry data to a system registry as claimed by Applicant since the system state or data restoring and recovering having the registry data are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including a checkpoint routine used for

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system recovery process [col. 5, lines 47-60] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein.

As per claim 21-26:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- **a floppy disk medium** [col. 2, lines 40-42];
- writing **device driver** to the medium [col. 2, lines 43-47];
- identifying a **restore program** [fig. 2, col. 4, lines 30-37].
- writing **hard disk configuration information** [col. 2, lines 45-60]

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- saving a list of instruction to execute (i.e., access control list) [col. 6, lines 35-50].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc.. [col. 12, lines 41-67].
- **a floppy disk medium** [col. 3, lines 37-45].

As per claims 27-28:

McGill substantially teaches the invention. McGill teaches:

- a method for restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - accessing information/data including hard disk configuration [fig. 3, col. 2, lines 21-22 and col. 2, lines 58-67];
 - interpreting the hard disk configuration information to automatically configured a hard disk [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files, data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58].
 - creating a restoration environment [fig. 3, col. 2, lines 22-31] including writing information/data to hard disk [fig. 3, col. 2, lines 21-22];

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- executing recovery instruction information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files [col. 3, lines 51-58]).

McGill does not explicitly teach:

- system state information.

However, McGill does disclose capability of:

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data,

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etc..., and more specifically data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58], recovery configuration for the system [fig. 3, col. 4, lines 24-39] as being the system state information as claimed by Applicant since the system state or data restoring and recovering are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22] and configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to

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enhance the computer system availability, performance throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claims 29-31:

McGill substantially teaches the invention. McGill teaches:

- a method for restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] with a restoration comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- a **hard drive medium** [col. 2, lines 58-59];
- configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5]
- a **floppy disk medium** [col. 2, lines 40-42];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
- with a restoration comprising:

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- a **hard drive medium** [col. 4, lines 1-5];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].
- a **floppy disk medium** [col. 3, lines 37-45].

As per claims 32-34:

McGill substantially teaches the invention. McGill teaches:

- a method for restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] with a restoration comprising:
- a graphical window environment (data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation operated in a window environment (i.e., Win 3.x)) [col. 3, lines 41-50];
- an OS/2 operation environment (i.e., a window driven) [col. 7, lines 43-53].

As per claims 35-38:

McGill substantially teaches the invention. McGill teaches:

- a method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- writing **device driver** to the medium [col. 2, lines 43-47];

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- identifying a **restore program** [fig. 2, col. 4, lines 30-37].
- writing **hard disk configuration information** [col. 2, lines 45-60].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];

comprising:

- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc.. [col. 12, lines 41-67].

As per claims 39-41:

McGill substantially teaches the invention. McGill teaches:

- a system for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - a medium [fig. 2, col. 3, lines 58-65];
 - a backup component, collecting information/data including hard disk configuration [fig. 3, col. 2, lines 21-22 and col. 2, lines 58-67];
 - recording (i.e., writing) data files a accessible medium [fig. 3, col. 2, lines 22-23];
 - a restore component, restoring recovery information to the medium [col. 2, lines 23-31];
 - configuring computer device with information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files [col. 3, lines 51-58])

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- automatically configuring a storage mechanism includes configuring a hard disk based on the storage mechanism configuration data[col. 2, lines 23-26];

McGill does not explicitly teach:

- system state information.

However, McGill does disclose capability of:

- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];

comprising:

- computer configuration data [col. 16, lines 6-15]
including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];
- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc..., and more specifically data information including operating

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system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58], recovery configuration for the system [fig. 3, col. 4, lines 24-39] as being the system state information as claimed by Applicant since the system state or data restoring and recovering are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22] and configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance

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throughput, and error free processing therein. It is further obvious because by utilizing this approach, the backup and restoring (i.e., error detection and recovery) system can be realized that any error or failure occurred in a computer data system can be identified, detected, corrected via data comparison/checking, data receiving and executing, etc.. in ordering to achieving high reliability and flexibility environment which will eventually provide optimum data availability.

As per claims 42-45 and 47:

McGill substantially teaches the invention. McGill teaches:

- a system for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
- data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
- a **hard drive medium** [col. 2, lines 58-59];
- configuring hard drive and copy files to the hard drive [col. 2, lines 58-67].
- hard drive including a boot volume and system volume [fig. 2, col. 2, line 58 through col. 3, line 5]
- a **floppy disk medium** [col. 2, lines 40-42];
- **automatically configuring a storage mechanism includes configuring a hard disk based on the storage mechanism configuration data**[col. 2, lines 23-26];

In addition, Hugard explicitly teaches:

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- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];
with a restoration comprising:
 - a **hard drive medium** [col. 4, lines 1-5];
 - configuration files and recovery tool files including
*.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].
 - a **floppy disk medium** [col. 3, lines 37-45].

As per claim 46:

McGill does not explicitly address:

- system registry information to a computer system.

However, McGill does disclose capability of:

- loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47].

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system
[abstract, col. 1, lines 10-18];
comprising:
 - a checkpoint routine used for system recovery process
[col. 5, lines 47-60];

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), and more specifically

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loading system configuration data, initializing the system configuration data, and re-initializing the system configuration data [col. 2, lines 18-47] as being the registry data to a system registry as claimed by Applicant since the system state or data restoring and recovering having the registry data are used to recover data or constructing data which has been lost via power failure, system crash, viruses, catastrophic failure; second, one would and can modify the McGill's computer system comprising failure detection, backup and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, failure detection and recovery function, executing data parameter (i.e., data configurations), receiving, storing data, etc...to explicitly including a checkpoint routine used for system recovery process [col. 5, lines 47-60] as taught by Hugard in supporting the system's error detecting and locating failure errors capabilities, error displaying capability, fault detection and signaling, error tracking, monitoring, as well as comparison for data testing, a signature analysis, a fault testing, fault detection and signaling via backup and restoring capabilities within the computer system.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the error handling within a error detection and recovery of computer data system, more specifically to the backup and restoring a computer system with a mechanism to enhance the computer system availability, performance throughput, and error free processing therein.

As per claims 48-55:

McGill substantially teaches the invention. McGill teaches:

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- a system for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - writing information/data to first medium [fig. 3, col. 2, lines 21-22];
 - writing data files via the backup device to a second medium [fig. 3, col. 2, lines 22-23];
 - data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58];
 - installing **device driver** to the medium [col. 2, lines 43-47];
- a **restore program** [fig. 2, col. 4, lines 30-37].
- copy operating system files **hard disk drive** [fig. 3, col. 2, lines 45-60 and col. 5, lines 40-50]
- creating a restoration environment [fig. 3, col. 2, lines 22-31];
- executing recovery instruction information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files [col. 3, lines 51-58]).

In addition, Hugard explicitly teaches:

- a backup and restoring data configuration system [abstract, col. 1, lines 10-18];
- comprising:
- computer configuration data [col. 16, lines 6-15] including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... [col. 10, lines 6-22];

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- configuration files and recovery tool files including *.INI, *.DRV, *.SYS, *.COM, *.EXE, etc... [col. 12, lines 41-67].

Response to Applicant's remarks

Applicant asserts that McGill in combining with Hugard fail to teach or suggest the following:

- a. writing the state information to a first medium, the system state information including storage mechanism configuration data;
- b. collecting and assessing state information including *hard disk configuration information*;

Examiner respectfully transverses Applicant's arguments as follows:

First, the combination of McGill's a method for recovering from a failure of a computer system and Hugard's a backup and restoring data configuration system do clearly teach the Applicant's invention. McGill further explicitly teaches a connectivity among hard disk including operating system, system configuration data, drivers, application file, backup disk or tape, recovery disk, operating installation disk, recovery application program, etc... [fig.2] via a high performance backplane channel means [col. 3, lines 40 through col. 4, lines 13]. The system configuration data is loaded, copied, restored, formatted, etc... within the computer system in supporting the data recovery process [fig. 3-7]. In addition, Hugard further discloses capabilities of recovering the computer system configuration data via an automatically changing or configuring

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the data file within the hard disk [abstract], save configuration, format data files, store system configuration, executing the data, etc... [fig. 2, col. 5, lines 46 through col. 6, lines 15]. It is so obvious to an ordinary skill in the art to realize the combination of both McGill and Hugard's function, capability, process, procedures, etc... of recovery from failure of a computer system do apply and teach Applicant's invention.

Second, the "state information" is explicitly taught by the combination of both McGill and Hugard's invention. The "state information" of a computer system can be the hard disk configuration including executive booting scripts, memory pointers, instructions for data reboot, data registration within the hard disk or memory, executing files, data file recovery, etc... McGill and Hugard do illustrate all and much more about computer "state information" therein in ordering to supporting the recovery from a failure of a computer data system. It would have been obvious to an ordinary skill in the art to realize the data detection and recovery of McGill and Hugard's computer system are the "state information" as called by Applicant since they do use for the same function and perform the same data recovery purpose.

a. First, it is not true that true that McGill in combining with Hugard fail to teach the "writing the state information to a first medium, the system state information including storage mechanism configuration data". McGill explicitly teaches the data configuration (i.e., McGill's computer backup and recover system comprising a connectivity among memory, CPU, drivers, system configuration, etc... [fig. 1 and 2] for reading, writing,

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loading, copying, configuring, etc... data within the computer system [col. 2, lines 3-67]) in a certain format (or defined format) used to ensuring data backup process properly [fig 5, col. 6, lines 59 through col. 7, lines 5. In addition, McGill teaches the use of FORMAT. COM utility to perform data process, format, partition correctly [col. 7, lines 38-58]. It would have been obvious to an ordinary skill in the art to implement McGill format commands to performing data read/write to and from medium in performing the computer backup and recover system.

Second, McGill's a method for restoring a computer system comprising accessing information/data including hard disk configuration, creating a restoration environment, executing recovery instruction information [col. 2, lines 23-31] (i.e., data information executing including operating system files, system configuration files, device driver files, data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation [col. 3, lines 51-58] can only be performed automatically in ordering to achieving the optimum data recovery result [fig. 11, indicating the "automatic restore process from writing the state information to a first medium.

b. First, it is not true that McGill in combining with Hugard fail to teach "collecting and assessing state information including *hard disk configuration information*". Examiner would like to re-emphasize the McGill's computer backup and recover system comprising a connectivity among memory, CPU, drivers, system configuration, etc... [fig. 1 and 2] for reading, writing,

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loading, copying, configuring, etc... data within the computer system [col. 2, lines 3-67]. One ordinary skill in the art would easily realize that the McGill's system does clearly deal with data backup and recovery via a computer data configuration (i.e., system state information). One ordinary skill in the art can realize that the capabilities of reading, writing loading, configuration a hard disk, etc... as being the collecting state information that included hard disk state data as claimed by Applicant since they both use and perform the same function that is to obtain hard disk state information in ordering to performing the data recovery within the computer data system. In addition Hugard also address this feature via automatically monitoring, selecting, querying data configuration data from hard disk for data recovery process [abstract, fig. 2, col. 1, lines 10-20 and col. 16, lines 5-55]. It is clearly and intuitively to an ordinary skill in the art that both McGill and Hugard do deal with the data accessed from hard disk for data failure detection and recovery in allowing the computer to operating uninterruptedly.

Second, McGill in combining with Hugard fail to teach the configuring a hard disk based on the hard disk state". McGill disclose capability of data information including operating system files, system configuration files, device driver files, and any other files necessary to properly configure and operate the workstation, hard disk configuration [col. 2, lines 18-67]. In addition, Hugard explicitly teaches a backup and restoring data configuration system comprising computer configuration data including AUTOEXEC.BAT, CONFIG.SYS, SYSTEM.INI, etc... configuration files and recovery tool files including *.INI,

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*.DRV, *.SYS, *.COM, *.EXE, etc... as well as automatically monitoring, selecting, querying data configuration data from hard disk for data recovery process [abstract, fig. 2, col. 1, lines 10-20 and col. 16, lines 5-55]. This is clearly shown that both McGill and Hugard's inventions do deal with the automatically for configuring computer system based on the hard disk state. It is further obvious to an ordinary skill in the art because with automatically performing of the hard disk configuration the computer can perform the data backup and recovery process smoothly.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703)746-7240.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 746-7239, (for formal communications
intended for entry)

Or:

(703) 746-7240 (for informal or draft
communications, please label "PROPOSED" or
"DRAFT")

Hand-delivered responses should be brought to Crystal
Park II, 2121 Crystal Drive, Arlington. VA., Sixth
Floor (Receptionist).


DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2184

DML
6/16/03